Date: Tue, 2 Aug 94 04:30:38 PDT
From: Ham-Homebrew Mailing List and Newsgroup <ham-homebrew@ucsd.edu>
Errors-To: Ham-Homebrew-Errors@UCSD.Edu
Reply-To: Ham-Homebrew@UCSD.Edu
Precedence: Bulk
Subject: Ham-Homebrew Digest V94 #218
To: Ham-Homebrew

Ham-Homebrew Digest   Tue, 2 Aug 94   Volume 94 : Issue 218

Today's Topics:

Send Replies or notes for publication to: <Ham-Homebrew@UCSD.Edu>
Send subscription requests to: <Ham-Homebrew-REQUEST@UCSD.Edu>
Problems you can't solve otherwise to brian@ucsd.edu.

Archives of past issues of the Ham-Homebrew Digest are available
(by FTP only) from UCSD.Edu in directory "mailarchives/ham-homebrew".

Date: 1 Aug 1994 02:14:32 GMT
From: ihnp4.ucsd.edu!news.acns.nwu.edu!anaxagoras.ils.nwu.edu!news.ecn.bgu.edu!
usenet.ins.cwru.edu!eff!news.duke.edu!concert!news.wfu.edu!ac!
charnoft@network.ucsd.edu
Subject: 2m mobil amplifier
To: ham-homebrew@ucsd.edu

     I'm thinking about building a small amplifier for a 2m HT to use
in my car. 30 or so watts.

     Anybody know where I could get some plans?

--
         *   *   *   *   *
         The more the pity that fools may not speak
                   wisely what wise men do foolishly.

Date: 1 Aug 1994 18:05:53 GMT
From: elroy.jpl.nasa.gov!usc!math.ohio-state.edu!cs.utexas.edu!convex!
news.duke.edu!news-feed-1.peachnet.edu!panther.Gsu.EDU!gatech!nntp.msstate.edu!
Isis.MsState.Edu!mcf2@ames.arpa
Subject: 2m mobil amplifier
To: ham-homebrew@ucsd.edu

Ramsey has a kit in their catalog for about $69 without the heatsink. Just
give them a call for their new catalog. All kinds of neat stuff in there.

mcf

--
     Michael C. Fortner   "I have all this love to give, and so far all
     N0YBC/5 28.380 MHz   all I have to show for it is my ham radio!"
     mcf2@ra.msstate.edu

Date: 1 Aug 1994 17:14:20 GMT
From: eng.iac.honeywell.com!agreen.iac.honeywell.com!alf@uunet.uu.net
Subject: 2m mobile amplifier
To: ham-homebrew@ucsd.edu

charnoft@ac.wfu.edu (Forrest T Charnock) wrote:
>   I'm thinking about building a small amplifier for a 2m HT to use
>in my car. 30 or so watts.

>   Anybody know where I could get some plans?

If you can lay hands on the Motorola RF Device Data Book, Vol II,
there is an excellent design by Helge Granberg for a ~30W amp in app note
AN791. Its based on the MRF240. There is also one for ~75W using the
MRF247.

A source for the Databooks, and the devices, is RF Parts, San Marcos Ca,
(619) 744 - 0700

GL es 73s de Alf   NU8I/G4ABB

Alf Green | Tel (602) 863 5842 | An organised person is just
Honeywell IAC | Fax (602) 789 4990 | too lazy to hunt for things.
Phoenix AZ | alf@agreen.iac.honeywell.com |
==========

Date: Fri, 29 Jul 94 19:09:51 GMT
From: hookup!yeshua.marcam.com!charnel.ecst.csuchico.edu!olivea!isc-br!tau-ceti!
jupiter!opus-ovh!bmork@ames.arpa
Subject: Coaxial Relay Sale
To: ham-homebrew@ucsd.edu

A commercial dealer selling coaxial relays, Surplus Sales of Nebraska,
402-346-4750, advertising in Nuts & Volts, sells SPDT coaxial
relays for $38+$4 s/h. They look nearly identical to two I have
for sale and are indicative of a SP6T relay assembly I have
for sale.

I'll sell you a SPDT relay for about half that price: $20 + $3 s/h.

Brian Mork UUCP bmork@opus-ovh.spk.wa.us / ARO ka9snf@ka7fvv.#ewa.wa.usa
.... USMail 6006-B Eaker, Fairchild, WA 99011
.. .. .. .V:509-244-3764 D:509-244-9260

Date: Fri, 29 Jul 94 19:19:34 GMT
From: olivea!isc-br!tau-ceti!jupiter!opus-ovh!bmork@ames.arpa
Subject: Cold-switch relay voltage ratings
To: ham-homebrew@ucsd.edu

btoback@netcom.com (Bruce Toback) writes:

> Can someone give me an idea of how to calculate the maximum voltage
> rating of a relay that is cold-switched? It should be a function of the
> contact separation distance, assuming that the rest of the insulation
> on the relay is adequate to handle the voltage. I'm looking for a way

Are you familar with CCInk: The Computer Applications Journal (and the
associated BBS)? This discussion was hashed out a few months back.
E-mail me if you need contact info.

Brian Mork UUCP bmork@opus-ovh.spk.wa.us / ARO ka9snf@ka7fvv.#ewa.wa.usa

.... USMail 6006-B Eaker, Fairchild, WA 99011
.. .. .. .V:509-244-3764 D:509-244-9260

Date: Fri, 29 Jul 94 19:13:44 GMT
From: olivea!isc-br!tau-ceti!jupiter!opus-ovh!bmork@ames.arpa
Subject: Does anyone have info on QEX?
To: ham-homebrew@ucsd.edu

yee@mipg.upenn.edu (Conway Yee) writes:

> If QEX is truly only 24 pgs, there is barely an excuse NOT to have it
> in QST. A typical QST is circa 240 pgs long. What is an extra 24
> pgs?

A quibble: It's nominally 32 pages long.

Brian Mork UUCP bmork@opus-ovh.spk.wa.us / ARO ka9snf@ka7fvv.#ewa.wa.usa
.... USMail 6006-B Eaker, Fairchild, WA 99011
.. .. .. .V:509-244-3764 D:509-244-9260

Date: 1 Aug 1994 17:34:52 GMT
From: ihnp4.ucsd.edu!agate!library.ucla.edu!csulb.edu!nic-nac.CSU.net!usc!
howland.reston.ans.net!gatech!news-feed-1.peachnet.edu!umn.edu!
newsdist.tc.umn.edu!dawn.mmm.com!tcdsp1!tahir@network.
Subject: IC's
To: ham-homebrew@ucsd.edu

Hi all,
I am looking for two parts:
1. LM143H
2. DS0026CN

Have exhausted all the usual e.g. Mouser, Digi-Key, Newark, Richardson.
Thanks for any help.

--

Date: 30 Jul 1994 20:39:04 GMT
From: agate!howland.reston.ans.net!gatech!news-feed-1.peachnet.edu!
hobbes.cc.uga.edu!aisun3.ai.uga.edu!mcovingt@ames.arpa
Subject: Info on old oscilloscopes
To: ham-homebrew@ucsd.edu

If I may blow my own horn for a moment, the latest Electronics Now (which arrived today) contains an article I wrote called "New Life for Old Oscilloscopes," complete with a schematic of a Heath IO-12.

What's amusing is that they bought the article from me in 1990, and I wondered for a while if it had been forgotten. But the information is at least as useful today as it was then.

There's also a book on old oscilloscopes being sold by Tucker Electronics. Has anyone seen it? I haven't, but it sounds like a useful thing.

--
< Michael A. Covington, Assc Rsch Scientist, Artificial Intelligence Center >
< The University of Georgia, Athens, GA 30602-7415 USA mcovingt@ai.uga.edu >
< Unless specifically indicated, I am not speaking for the University. > <><
For information about any U.Ga. graduate program, email gradadm@uga.cc.uga.edu.

Date: 2 Aug 94 04:27:11 GMT
From: news-mail-gateway@ucsd.edu
Subject: Model rocket telemetry..
To: ham-homebrew@ucsd.edu

>A Varactor diode, sometimes called a varicap is a 'diode' who's capacitance
>is varied by a DC bias voltage; often used to electronically tune radios.
>Most of the major distribs. should carry them i.e. mouser, digi-key etc.

--> You would think so, considering their widespread use in TV tuners, etc., but I get Mouser, Digi-Key, and a few other catalogs and still have not had any luck fiding a varactor. (I also need one, for the same circuit in fact.) Marlin P. Jones & Associates (A surplus catalog) used to have a matched set of 3 for something like 10 cents, but they don't have them anymore. If anyone knows a source for these, I'd appreciate a reply.

--
-=-
ai351@leo.nmc.edu David Brodbeck
Amateur packet (AX.25): N8SRE@wb4vva.#nemi.mi.usa.na

-=-

Date: Mon, 1 Aug 94 02:07:00 -0500
From: ihnp4.ucsd.edu!dog.ee.lbl.gov!agate!iat.holonet.net!wwswinc!
barry.davis@network.ucsd.edu
Subject: New
To: ham-homebrew@ucsd.edu

VBARNET BBS is now carrying this conference.

--- Squish v1.01
 * Origin: VBARNET * USA * (410)761-3406 or 922-8947 * PCB & OS/2 (1:261/1458)

Date: 1 Aug 1994 16:30:52 GMT
From: ihnp4.ucsd.edu!agate!howland.reston.ans.net!noc.near.net!sunfish.hi.com!
brainiac.hi.com!user@network.ucsd.edu
Subject: RF bridges
To: ham-homebrew@ucsd.edu

What's inside a General Radio RF bridge?

I'm about to embark on homebrewing an RF bridge. I've looked over a few
ARRL Handbook designs, and the one in the ARRL antenna book vol 3. But I'm
wondering if I couldn't do better by emulating GR and re-zeroing the bridge
at every frequency change, rather than attempting to null the bridge over
the full 2 to 30 Mhz range. I'm also curious about the design of GR's
bridges. (I've never used one.)

Thanks,
-Steve

Steve Byan   internet: steve@hi.com
Hitachi Computer Products (America), Inc.
1601 Trapelo Road   phone: (617) 890-0444
Waltham, MA 02154   FAX: (617) 890-4998

Date: Fri, 29 Jul 94 19:16:16 GMT
From: elroy.jpl.nasa.gov!swrinde!emory!nntp.msstate.edu!olivea!isc-br!tau-ceti!
jupiter!opus-ovh!bmork@ames.arpa
Subject: Telemetry frequencies
To: ham-homebrew@ucsd.edu

andyb@access1.digex.net (Andy Harrah) writes:

> While waiting for my ticket to arrive, I've been designing a simple telemetry
> system to go onboard an R/C helicopter. My question is this - how do I
> handle the trade off of lower frequency equipment being easier to build at
> home vs. the benefit of having a full size antenna system on the helicopter.
> I started off thinking 50 MHz would be easy to work with until I got around
> to thinking about the antenna.

RC has used 27 MHz, 72 MHz, Amateur 50 MHz and now a new band (don't
know it). Have you noticed the transmitter and receiver antennas aren't
changing? They just keep using random length wires and metal stick
transmitting antennas. Tune the finals for best signal strength.

I cringe when I see a modeller cut the antenna off because it's longer
than the length of the wing.

Summary: Don't worry about the receive antenna. Just use a piece of wire.
Your Amatuer Radio knowledge it showing through! :) Just pretend you don't
know what you know.

Brian Mork UUCP bmork@opus-ovh.spk.wa.us / ARO ka9snf@ka7fvv.#ewa.wa.usa
.... USMail 6006-B Eaker, Fairchild, WA 99011
.. .. .. .V:509-244-3764 D:509-244-9260

Date: 1 Aug 1994 19:37:36 GMT
From: europa.eng.gtefsd.com!news.msfc.nasa.gov!usenet@uunet.uu.net
To: ham-homebrew@ucsd.edu

References <9406267752.AA775262763@mails.imed.com>,
<313vf8$4c7@hammer.msfc.nasa.gov>, <stewart.4.000A2656@anl.gov>
Subject : Re: Reply to thread about building a house

In article <stewart.4.000A2656@anl.gov>, stewart@anl.gov (Robin Stewart) says:
>
>
>>Yup. Need the 12ga wire to reduce voltage drop, and an isolated ground to
>>reduce noise. Circuit is dedicated to one PC type computer only, about 10 amp
>>draw absolute max. I have found the "negative resistance" characteristics and
>>pulse noise from PC power supplies needs a dedicated circuit for reliability.
The
>>12ga wire helps avoid voltage drops, and the dedicated circuit eliminates noise
>>from other equipment. The "negative resistance" thing refers to the switching
>>power supply tendency to draw a lot more current as voltage drops in a brownout.

>>Heavy wire helps reduce voltage drop, and thus excessive current draw. The
>>UPS handles the rest of the problem <grin>!
>
>Good suggestion on the PC (switching) power supplies. However, be careful
>about the ground. An ground which is indepenent of the ground/neutral bond
>(located at the distribution panel) could create a nice ground loop. Most
>modern Ham gear has a separate RF ground and safety ground (since most is 12
>VDC), but this is not the case with tube based gear. Follow NEC to the letter
>on grounding, and avoiding the ground loops. They are a real pain.
>
>
Lousy description of "isolated circuit" on my part:

The ground and neutral on the "dedicated circuit" IS (must be) terminated inside the
circuit breaker box in the basement in the normal, NEC-specified manner. This prevents ground loops. It also is the only set of hot, ground, and neutral in an independent cable run from the distribution box to the outlet. There are NO other devices in the circuit save the outlet at the computer location. This prevents other
equipment from injecting noise into the circuit, unless they can "move" the ground and/or neutral in the distribution box. I woulda run it all in metallic conduit if I was
really out for noise reduction, but my surge supressor/filter seems to solve the RF
noise problem.

If I really needed a pseudo-isolated ground, I woulda run the circuits into a separate
distribution box. In some juristictions, these boxes may have a separate ground lead to an earth ground. (not here, though). "High Isolation" transformers could be
necessary, too. For my tube-type Ham radio stuff, I may have to run through a "ground window" that is connected to a good RF and electrical ground point for antennas, computers, and radios. Keeping RF outta the house is a whole different ballgame. I'm trying to keep pulse-type noise out of the computers, at present. RF adds a whole new set of problems! My HAM shack may have to be run in conduit to keep the RF out of the power (and my hide, if you know what I mean).

Power distribution is such fun (NOT!)

--Rich, KE4GNK (Tamperer with lightning and VHF radio)

Date: Sat, 30 Jul 1994 20:30:16 GMT
From: agate!howland.reston.ans.net!gatech!news-feed-1.peachnet.edu!news.duke.edu!

eff!news.kei.com!ub!freenet.buffalo.edu!aa450@ames.arpa
To: ham-homebrew@ucsd.edu

References <31aeio$miv@rigel.infinet.com>, <drew.149.0@trl.oz.au>,
<315s03$am1@nyx10.cs.du.edu>-1.p
Reply-To : aa450@freenet.buffalo.edu (Kurt Rieder)
Subject : Re: HISTORY OF 50 OHM COAX

After reading several posts in this interesting thread, I happened to be leafing through an old magazine last night, and there it was. Thought that others may enjoy the story of a man who was there, so I will attempt to abstract.

From: Bill Orr, W6SAI - "Coax Revisited" - Ham Radio, Jun'89
Time: mid-summer 1941
Place: Douglas Aircraft assembly plant, assembly line for the A20 (Boston)
attack bomber.

Orr says he and co-worker W6KJI were in the crowded tail section of a near complete A20. Orr had turned on the 100 W. transmitter a few minutes before and left it key-down for testing. His friend sad, "Feel the cable". It was no surprise to Orr that the cable was, "very warm to the touch". The old coax used "copolene" dielectric.

His friend lead him out of the plane and showed him new coax called WC549 and a box of "new style" fittings designated PL-259 and SO-239. Starting with plane #386, this coax with brand new polyethylene dielectric and "glistening in a black jacket" was to be used.

So there you have it... the exact time for the historic moment.

Orr goes on to talk about miles of coax being sold as surplus after the was at 2 - 5 cents/foot !

This 52 ohm coax was later renamed RG-8/U ; RG = Radio Guide, 8 = type, and U = utility service. It was later changed to 50 ohm with the designation RG-213/U. At the same time 53.5 ohm RG-58/U was changed to 50 ohm RG-58A/U and later to RG-58C/U.

Orr also goes into the quality scam which arose from the government dropping the RG-8/U mil spec.

An interesting and useful point made by Orr is that RG-213/U or good RG-8/U will weigh about 11 lbs./100 ft., while cheap RG-8/U will weight as little as 8 lbs./100 ft. (note: foam differs)

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End of Ham-Homebrew Digest V94 #218
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